UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER
PESIN, BORIS M

ART UNIT	PAPER NUMBER
2174	

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Please find below and/or attached an Office communication concerning this application or proceeding.

PTO-90C (Rev. 10/03)

	Application No.	Applicant(s)
Office Action Summary	09/965,073	WAKITA ET AL.
	Examiner	Art Unit	
	Boris Pesin	2174	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
  Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on <u>30 June 2004</u>.

2a) ☐ This action is **FINAL**.   2b) ☒ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) <u>1-63</u> is/are pending in the application.

    4a) Of the above claim(s) <u>1-31 and 52-63</u> is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) <u>32-51</u> is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☒ All   b) ☐ Some * c) ☐ None of:

      1. ☒ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

Applicant's election without traverse of Claims 1-31 and 52-63 in the reply filed

on 06/02/2004 is acknowledged.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 43 and 46 are rejected under 35 U.S.C. 112, first paragraph, as failing to

comply with the enablement requirement. The claim(s) contains subject matter which

was not described in the specification in such a way as to enable one skilled in the art to

which it pertains, or with which it is most nearly connected, to make and/or use the

invention.

In regards to claim 43, it is not clear to the Examiner what the Applicant means

by "the object permitted to be held as a plural and the object prohibited from being held

as a plural by the schema definition".

In regards to claim 46, it is not clear to the Examiner what the Applicant means

by "said designated object exists as a plural".

The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 32-51 are rejected under 35 U.S.C. 112, second paragraph, as being

indefinite for failing to particularly point out and distinctly claim the subject matter which

applicant regards as the invention.

The applicant uses the word "when" throughout the claim language to introduce

claim limitations. However, the word "when" makes the claim limitations conditional.

Claim limitations should be written in the positive form.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 32, 33, and 49 are rejected under 35 U.S.C. 102(e) as being anticipated

by Rathbun (US 6138123).

In regards to claim 32, Rathbun teaches an object content structure management

method for managing a content structure of an object, the content structure of the object

expressed by a tree-structure set membership consisting of zero or at least one object,

an attribute capable of being held by the object for each object type and the object type

being defined by a schema definition, wherein a list of child objects defined by said

schema definition is managed for each said object, the child objects capable of being held by said object (Figure 43, Element P1, P2, and P3); the list of said child objects holds instances of all objects actually existing as the child objects and objects which do not actually exist but can exist as the child objects(Figure 43, Element P2-D2, "55 and 56" actually exist and "50-59" can exist), and each object holds determination information for determining whether a certain object is an instance of an actually existing object or an object which does not actually exist but can exist as a child object (Figure 43, Element P2-D2, "55 and 56" actually exist and "50-59" can exist); when an arbitrary object is set as a start object, a list of child objects of said start object, a list of the child objects of each object held by the list of the child objects, and a list of child objects of each object held by a list of child objects of the child objects are sequentially managed, thereby managing a content structure of said start object (Figure 43, All of the objects are sequentially managed. They are managed by their numbers and where those numbers fall within certain ranges).

In regards to claim 33, Rathbun teaches an object content structure management method according to claim 32, wherein the objects which do not actually exist but can exist as the child objects are managed one by one for each object of a same type (Figure 43, Element P2-A2, "20-29", "40-49" and "60-70" all are managed separately in different groups).

Claim 49 is in the same context as claim 32; therefore it is rejected under similar rationale.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that

form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 35, 36, 37, 38, 39, 40, 41, 44, 45, 46, 47, 50, and 51 are rejected under

35 U.S.C. 102(b) as being anticipated by Micorosft Windows NT (Screen Shots).

In regards to claim 35, Windows teaches an object content structure display

method for displaying a content structure of an object, the content structure of the object

expressed by a tree-structure set membership consisting of zero or at least one object,

an attribute capable of being held by the object for each object type and the object type

being defined by a schema definition (See Figure 1), wherein objects held by said object

as child objects are expressed by a tree structure, a character string representing the

object type is displayed on each node of the tree structure to display a structure of the

object (See Figure 1, Element 1), a type and a value of the attribute capable of being

held by an object selected from the displayed tree structure are displayed, thereby

displaying a content and a structure of the selected object (See Figure 1, Element 1).

In regards to claim 36, Windows teaches an object content structure display

method according to claim 35, wherein not only instance objects actually held by the

object but also objects which are not held by the object but can be held based on the

schema definition are simultaneously displayed in the tree structure one by one for each

object type, and the instance objects and the objects other than the instance objects are

discriminated by different icons, respectively and then displayed (See Figure 2, Instance objects are shown to have a "speaker" icon next to them, and the objects that can be held are shown without a "speaker").

In regards to claim 37, Windows teaches an object content structure display method according to claim 35, wherein when there is a probability that objects likely to be held by the object serving as a root further hold objects, said tree structure is expressed hierarchically (See Figure 1); and when a displayed hierarchical level is designated at a time of hierarchically displaying said tree structure, structures below the actually existing instance objects are displayed up to the designated hierarchical level and display of structures below the designated hierarchical level is omitted (See Figure 1, There are always 2 levels in the tree so no more levels are shown).

In regards to claim 38, Windows teaches an object content structure display method according to claim 35, wherein when it is possible to hold any one of a plurality of types of objects under a schema definition of types of child objects capable of being held by the object, all objects of choices are displayed in a tree structure as child nodes and the objects actually selected and held among the choices and the unselected choices are discriminated from each other by different icons, respectively and then displayed (See Figure 2, Instance objects are shown to have a "speaker" icon next to them, and the objects that can be held are shown without a "speaker").

In regards to claim 39, Windows teaches an object content structure display method according to claim 35, wherein when retrieval is indicated after designating the character string representing the object type (See Figure 1, The user can click on the

string that he wants to retrieve), all retrieved objects are highlighted (See Figure 1, The object is highlighted after it is retrieved).

In regards to claim 40, Windows teaches an object content structure display method according to claim 35, wherein when it is possible to hold a plurality of child objects of a same type under a schema definition of types of the child objects capable of held by the object, one of a maximum number and a minimum number of the child objects capable of being held are displayed in said tree structure (See Figures 1 and 2, there is a predetermined number of objects that can be held at one time, therefore there is a maximum and a minimum).

In regards to claim 41, Windows teaches an object content structure editing method for editing a content structure of an object, the content structure of the object expressed by a tree-structure set membership consisting of zero or at least one object, an attribute capable of being held by the object for each object type and the object type being defined by a schema definition, wherein objects held by said object as child objects are expressed by a tree structure, a character string representing the object type is displayed on each node of the tree structure to display a structure of the object, a type and a value of an attribute capable of held by an object selected from the displayed tree structure are displayed, thereby displaying a content and a structure of the selected object (See Figure 1); and when a value to be changed is inputted and change is indicated for said displayed attribute value, the attribute value of the object is updated to the input value (See Figure 2, Element 1).

In regards to claim 44, Windows NT teaches an object content structure editing method according to claim 41, wherein when addition is indicated after designating one dummy objects indicating types of objects which do not actually exist but can be held, said designated dummy object is changed to an actual instance and an icon of said designated dummy object is changed to an icon indicating the actual instance in the tree structure (See Figure 1, when a sound is associated with something that currently does not have a sound, the particular item instantiates an icon associated with the label).

In regards to claim 45, Windows NT teaches an object content structure editing method according to claim 44, wherein when not only said designated dummy object but also ancestor objects of said designated dummy object are dummy objects, the ancestor objects are sequentially changed to instances (See Figure 1, The node has no accessorial dummy objects).

In regards to claim 46, Windows NT teaches an object content structure editing method according to claim 41, wherein when deletion is indicated after designating the actually existing object and said designated object exists as a plural, then structures below the objects are deleted and display of the objects is deleted from the tree structure; and when the deletion is indicated after designating the actually existing object and said designated object is a single object, then nodes below the designated object are changed to dummy objects and display icons of the nodes in the tree structure are changed (See Figure 3, The object is deleted and the node becomes a dummy node).

In regards to claim 47, Windows NT teaches an object content structure editing

method according to claim 41, wherein when selection change is indicated after one of

dummy objects indicating unselected choices is designated, the objects selected before

the selection change are changed to the objects indicating choices and said designated

object is changed to a selected object (See Figure 3, There are multiple selection

choices).

Claim 50 is in the same context as claim 35; therefore it is rejected under similar

rationale.

Claim 51 is in the same context as claim 41; therefore it is rejected under similar

rationale.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* v. *John Deere Co.*, 383 U.S. 1, 148

USPQ 459 (1966), that are applied for establishing a background for determining

obviousness under 35 U.S.C. 103(a) are summarized as follows:

1.   Determining the scope and contents of the prior art.
2.   Ascertaining the differences between the prior art and the claims at issue.
3.   Resolving the level of ordinary skill in the pertinent art.
4.   Considering objective evidence present in the application indicating
      obviousness or nonobviousness.

Claim 34 is rejected under 35 U.S.C. 103(a) as being unpatentable over Rathbun

(US 6138123) in view of Ishikawa (US 6483508).

In regards to claim 34, Rathbun teaches all the limitations of claim 32. Rathbun

does not teach an object content structure management method wherein when a

plurality of objects including an exclusively selectable object exist in a plurality of types

of objects capable of being held by a certain object by a schema definition of the object,

said certain object manages said plurality of objects including the exclusively selectable

object as a choice list besides said list of child objects; when one object is selected from

among a plurality of choices, only the selected object is managed by a list of child

objects of a parent object and objects other than the selected object of the choices are

managed as the objects which do not actually exist but can exist as child objects in the

choice list of said selected object. Ishikawa teaches a method wherein when a plurality

of objects including an exclusively selectable object exist in a plurality of types of

objects capable of being held by a certain object by a schema definition of the object,

said certain object manages said plurality of objects including the exclusively selectable

object as a choice list besides said list of child objects (i.e. Figure 10); when one object

is selected from among a plurality of choices, only the selected object is managed by a

list of child objects of a parent object and objects other than the selected object of the

choices are managed as the objects which do not actually exist but can exist as child

objects in the choice list of said selected object (i.e. Figure 10, "Transform

(Transform_00). It would have been obvious to one of ordinary skill in the art at the time

of the invention to modify Rathbun with the teachings of Ishikawa and include a method

of selecting modifiable objects in order to manage them with the motivation to provide

the user a convenient method of managing the hierarchy tree.

Claims 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable

over Windows NT (Screen Shots) in view of Ishikawa (US 6483508).

In regards to claim 42, Windows teaches all the limitations of claim 41. Windows

NT does not teach an object content structure editing apparatus wherein when instance

addition is indicated after one of the objects existing in the tree structure is designated,

an instance object of the same type as a type of the designated object is created and

the object of the same type is displayed as a fraternal node of said designated object in

the tree structure. Ishikawa teaches an object content structure editing apparatus

wherein when instance addition is indicated after one of the objects existing in the tree

structure is designated, an instance object of the same type as a type of the designated

object is created and the object of the same type is displayed as a fraternal node of said

designated object in the tree structure (Figure 10). It would have been obvious to one

of ordinary skill in the art at the time of the invention to combine Windows NT with the

teachings of Ishikawa and include a system to add an instance to a tree with the

motivation to provide the user a convenient way of changing the dynamics of a tree

structure.

In regards to claim 43, Windows NT and Ishikawa tech all the limitations of claim

42. Windows NT further teaches an object content structure editing method wherein the

object permitted to be held as a plural and the object prohibited from being held as a

plural by the schema definition are discriminated by different display colors or different icons, respectively and then displayed, instance addition indication for said object prohibited from being held as a plural is not accepted (See Figure 1, different types of objects have different icons next to them).

Claim 48 is rejected under 35 U.S.C. 103(a) as being unpatentable over Windows NT (Screen Shots).

Windows NT teaches all the limitations of claim 41. Windows NT does not teach an object content structure editing method according to claim 41, wherein edited object contents are outputted by a description language, the description language being one of an MPEG-7 description language or an XML description language. Official notice is given that it is well known in the art to display data using an XML description language. It would have been obvious to one of ordinary skill in the art at the time of the invention to modify Windows NT and include a system wherein the contents are outputted by an XML description language with the motivation to provide the user a versatile method of displaying and changing data.

Inquiry

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Boris Pesin whose telephone number is (571) 272-4070. The examiner can normally be reached on Monday-Friday except every other Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's

supervisor, Kristine Kincaid can be reached on (571) 272-4063. The fax phone number

for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the

Patent Application Information Retrieval (PAIR) system. Status information for

published applications may be obtained from either Private PAIR or Public PAIR.

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you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

BP

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